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10/659,776	09/10/2003	Kristian Fagerstrom	944-003.174	4887

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EXAMINER

SANTIAGO CORDERO, MARIVELISSE

ART UNIT PAPER NUMBER

2687

DATE MAILED: 11/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/659,776

Applicant(s)

FAGERSTROM ET AL.

Examiner

Marivelisse Santiago-Cordero

Art Unit

2687

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 15-25 is/are rejected.
- 7) ☒ Claim(s) 11-14 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 September 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input checked="" type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. ____.  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____.  | 6) <input type="checkbox"/> Other: ____.                                    |

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The references cited in the Information Disclosure Statement (IDS) filed on 9/10/03 have been considered.

### ***Drawings***

2. The drawings are objected to by the Draftsperson under 37 CFR 1.84 or 1.152. See attached form PTO-948.

### ***Specification***

3. The disclosure is objected to because of the following informalities: the term "keyboard base 16" (page 12, line 6) should be replaced with --keyboard base 12--. Appropriate correction is required.

### ***Claim Objections***

4. Claim 23 is objected to because of the following informalities: the dependency of the claim is incorrect since there is no earlier mention of the limitation "the two portions" stated in line 3. For purposes of applying prior art, the dependency of the claim would be assumed to be from claim 19. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 5-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 5 recites the limitation "said swivelable cover" in line 2 of the claim. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1-10, 17-18, 22, 24-25 are rejected under 35 U.S.C. 102(e) as being anticipated by Lahr (Pub. No.: US 2003/0132863).

Regarding claim 1, Lahr discloses a mobile communication device comprising: (a) a base element (Figs. 2, 4-7, reference numeral 20); (b) at least one functional element (Figs. 4-7, note the keyboard) mounted for reciprocal movement on said base element between retracted (Fig. 2) and extended positions (Fig. 7); and (c) a cover element (Figs. 1-2, reference 12) having upper (Fig. 1) and lower faces (Fig. 3), said cover element mounted to said base element for relative movement thereto between closed and opened positions (Figs. 1-2, and 7) and adapted to move said at least one functional element between the retracted and extended positions during relative movement of said cover element between the closed and opened positions (Figs. 1-3, and 7).

Regarding claim 2, Lahr discloses a mobile communication device in accordance with claim 1, wherein said at least one functional element is exposed for operative use in the opened and extended positions (Fig. 7) and said cover element and said at least one functional element are in overlapping alignment in the closed and retracted positions (Figs. 1-2).

Regarding claim 3, Lahr discloses a mobile communication device in accordance with claim 1, wherein said cover element is a swivelable cover element rotatably mounted on said base element (Fig. 3; page 1, paragraph [0012]).

Regarding claim 4, Lahr discloses a mobile communication device in accordance with claim 3, wherein said swivelable cover element is rotatably mounted on said base element around an axis extending generally perpendicular to said upper and lower faces thereof (Figs. 1, 3, 5, and 7).

Regarding claim 5, Lahr discloses a mobile communication device in accordance with claim 1, wherein said swivelable cover element is rotatably mounted on said base element around an axis extending generally perpendicular to the reciprocal movement of said at least one functional element (Figs. 1, 3, 5, and 7).

Regarding claim 6, Lahr discloses mobile communication device in accordance with claim 5, wherein said cover element is rotated 90 degrees between the closed and opened positions (Figs. 5-6).

Regarding claim 7, Lahr discloses mobile communication device in accordance with claim 1, wherein said cover element is rotated 90 degrees between the closed and opened positions (Figs. 5-6).

Regarding claim 8, Lahr discloses a mobile communication device in accordance with claim 1, wherein one of said cover element and said at least one functional element defines at least one eccentric groove (Fig. 3, reference numeral 18) and the other of said cover element and said at least one functional element has at least one pin captured in the eccentric groove (Fig. 4, reference numeral 22), whereby mechanical interaction of said at least one pin within said at

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least one groove during relative movement of said cover element to said base element between the closed and opened positions moves said at least one functional element between the retracted and extended positions (page 1, paragraph [0012]; page 2, paragraph [0024]).

Regarding claim 9, Lahr discloses a mobile communication device in accordance with claim 8, wherein said at least one groove is defined in said cover element (Fig. 3, reference numeral 18) and said at least one pin is located on said at least one functional element (Fig. 4, reference numeral 22).

Regarding claim 10, Lahr discloses a mobile communication device in accordance with claim 1, wherein said at least one functional element is slidably received in at least one channel in said base element for reciprocal movement (page 2, paragraph [0028]; note the channel through which each key is moved reciprocally), whereby said cover element and said at least one functional element mechanically interact during relative movement of said cover element to said base element between the closed and opened positions to move said at least one functional element between the retracted and extended positions (page 2, paragraph [0024]).

Regarding claim 17, Lahr discloses a mobile communication device in accordance with claim 1, further including a screen constructed in the upper face of said cover element to provide a visible display of information to the user (Fig. 1, reference numeral 14).

Regarding claim 18, Lahr discloses a mobile communication device in accordance with claim 1, wherein said at least one functional element is a function keyboard (Fig. 4; page 1, paragraph [0002]).

Regarding claim 22, Lahr discloses a mobile communication device in accordance with claim 18, wherein said function keyboard is exposed for operative use in the opened and

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extended positions (Fig. 7) and said cover element and said function keyboard are in overlapping alignment in the closed and retracted positions (Figs. 1-2).

Regarding claim 24, Lahr discloses a mobile communication device in accordance with claim 18, wherein said function keyboard has an array of keys consistent with selected functions (Fig. 2; page 2, paragraph [0025]), said array of keys are offset to prevent interference between said array of keys and said cover element in the closed and retracted positions (Fig. 2).

Regarding claim 25, Lahr discloses a mobile communication device in accordance with claim 1, further comprising a communication keypad constructed on said upper face of said cover element (Fig. 1, reference numeral 16), said keypad being exposed for operative use in the closed and opened positions (Fig. 1).

### ***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

11. Claims 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lahr in view of Murphy (Pub. No.: US 2003/0147205).

Regarding claim 15, Lahr discloses a mobile communication device in accordance with claim 10 (see above), as said at least one functional element is moved between the retracted and extended positions during relative movement of said cover element to said base element between the closed and opened positions (Figs. 1-3, and 7).

Lahr fails to disclose wherein said at least one functional element has at least one tension spring element to bias said at least one functional element against said cover element.

However, Murphy discloses wherein said at least one functional element has at least one tension spring element to bias said at least one functional element against said cover element (Figs. 3, 5-7, reference numerals 154 and 162).

Therefore, it would have been obvious to one of ordinary skill in this art at the time of invention by applicant to incorporate at least one tension spring element to bias said at least one functional element against said cover element of Lahr as suggested by Murphy as said at least one functional element is moved between the retracted and extended positions during relative movement of said cover element to said base element between the closed and opened positions of Lahr.

One of ordinary skill in this art would have been motivated to incorporate at least one tension spring element to bias said at least one functional element against said cover element as said at least one functional element is moved between the retracted and extended positions during relative movement of said cover element to said base element between the closed and



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opened positions because it would uncompress and push out the keyboard section in a well known manner (Murphy: page 4, paragraph [0046]).

Regarding claim 16, Lahr discloses a mobile communication device in accordance with claim 1 (see above), as said at least one functional element is moved between the retracted and extended positions during relative movement of said cover element to said base element between the closed and opened positions (Figs. 1-3, and 7).

Lahr fails to disclose wherein said at least one functional element has at least one tension spring element to bias said at least one functional element against said cover element.

However, Murphy discloses wherein said at least one functional element has at least one tension spring element to bias said at least one functional element against said cover element (Figs. 3, 5-7, reference numerals 154 and 162).

Therefore, it would have been obvious to one of ordinary skill in this art at the time of invention by applicant to incorporate at least one tension spring element to bias said at least one functional element against said cover element of Lahr as suggested by Murphy as said at least one functional element is moved between the retracted and extended positions during relative movement of said cover element to said base element between the closed and opened positions of Lahr.

One of ordinary skill in this art would have been motivated to incorporate at least one tension spring element to bias said at least one functional element against said cover element as said at least one functional element is moved between the retracted and extended positions during relative movement of said cover element to said base element between the closed and

opened positions because it would uncompress and push out the keyboard section in a well known manner (Murphy: page 4, paragraph [0046]).

12. Claims 19-21 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lahr in view of Kwon (Pub. No.: US 2004/0203513).

Regarding claim 19, Lahr discloses a mobile communication device in accordance with claim 18 (see above). Lahr fails to disclose wherein said function keyboard is constructed in two portions, each mounted for reciprocal movement on said base element between retracted and extended positions, each of said function keyboard portions having an array of keys consistent with a selected function.

However, in the same field of endeavor, Kwon discloses wherein said function keyboard is constructed in two portions (Fig. 3, reference numerals 8 and 9), each mounted for reciprocal movement on said base element between retracted (Fig. 2) and extended positions (Fig. 4), each of said function keyboard portions having an array of keys consistent with a selected function (Fig. 3, reference numerals 10 and 11).

Therefore, it would have been obvious to one of ordinary skill in this art at the time of invention by applicant to construct the keyboard of Lahr in two portions, each mounted for reciprocal movement on said base element between retracted and extended positions, each of said function keyboard portions having an array of keys consistent with a selected function as suggested by Kwon.

One of ordinary skill in this art would have been motivated to construct the keyboard in two portions, each mounted for reciprocal movement on said base element between retracted and extended positions, each of said function keyboard portions having an array of keys consistent

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with a selected function because it would carry out information input and transmission/receive of various data without selecting several character, numbers and the like by a single input key (Kwon: page 9, paragraph [0098]); in addition to reduce the volume of the device when not in use to facilitate convenient carry and storage.

Regarding claim 20, in the obvious combination, Kwon discloses wherein said two portions of said function keyboard move away from each other during movement from the retracted position to the extended position (Figs. 2-3) and toward each other during movement from the extended position to the retracted position (Figs. 5A-C).

Regarding claim 21, in the obvious combination, Kwon discloses wherein said two portions are on opposite sides of said cover element in the opened and extended positions (Fig. 4).

Regarding claim 23, in the obvious combination, Lahr discloses wherein said function keyboard comprises a full function QWERTY key array (page 2, paragraph [0025]). Moreover, in the obvious combination, Kwon discloses wherein said function keyboard comprises a full function QWERTY key array split between the two portions (page 3, paragraph [0047]; note that QWERTY keyboard is a standard computer keyboard).

***Allowable Subject Matter***

13. Claims 11-14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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*Conclusion*

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kim (Pub. No.: US 20050020323) discloses a sliding keypad; Sutton et al. (Pub. No.: 2004/0185922) discloses a smart-phone with a novel opening mechanism; Park et al. (Pub. No.: US 2004/0203517) discloses opening and closing second keypads; Lahr (WO 03/050665) discloses a rotatable, expandable, and contractive keyboard; and Pollitt (JP 05-165548) discloses a personal computer with separable keyboard.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marivelisse Santiago-Cordero whose telephone number is (571) 272-7839. The examiner can normally be reached on Monday through Friday from 7:30am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester Kincaid can be reached on (571) 272-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

msc 11/21/05  
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PATENT EXAMINER